Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

HW#39H: Apply Congruence and Triangles

Honors Geometry

Due Date: Wednesday, Dec. 3rd, 2014

**Failure to show all work and write in complete sentences will result in LaSalle!**

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| In the diagram, Δ*EFG* ≅ Δ*OPQ.* Complete the statement.   1. ≅ \_\_\_\_\_   *EF*   1. ∠*P* ≅ \_\_\_\_\_ 2. ∠*G* ≅ \_\_\_\_\_ 3. *m*∠*O* = \_\_\_\_\_ 4. *QO* = \_\_\_\_\_ 5. Δ*GFE* ≅ \_\_\_\_\_ | |
| 7. Find the value of x. | 8. Given Δ *ABC* ≅ Δ*DEF* , find the value of x and y. |
| 9. Graph the triangle with vertices *A*(1, 2), *B*(2, -2), and *C*(5, 4). Then graph a triangle congruent to Δ*ABC* **with different coordinates.** | 10. Write a congruence statement for the following figures.  a)  b) |
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| 11) |
| 12) Prove that triangles are congruent.  **Given** E is the midpoint of AC and BD  **Prove** Δ*ABE* ≅ Δ*CDE* |
| 13) Prove that triangles are congruent.    **Given** ≅ ≅ ,  *JH ,*  *JG*  *FG*  *FH*  ∠FHG ≅ ∠JHG, ∠FGH ≅ ∠JGH  **Prove** ΔFGH ≅ ΔJGH |